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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: :  
Giorgio BERTOLINI et al. : Attorney Docket: 2003IT304  
Serial No.: to be Assigned :  
Filed: April 21, 2006 :  
Title: PROCESS FOR THE PREPARATION OF DOXIFLURIDINE

Transmittal Letter  
Notification of Amendments Under PCT Article 34

Mail Stop:  
Commissioner for Patents  
P. O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

Preliminary to the examination of the above-identified application, an Amendment was filed under Article 34 of the Patent Cooperation Treaty prior to the International Preliminary Examination. Please note that the attached pages, 8 and 9, Claims 1-8, were filed with the European Patent Office.

Applicant respectfully requests submission of this page before examination of the application and before entry of the Preliminary Amendment.

Respectfully submitted,

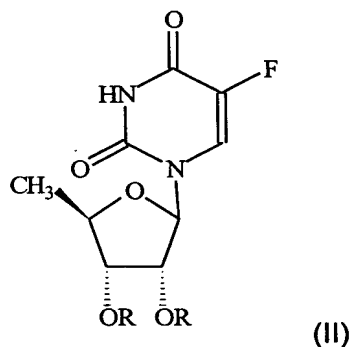
  
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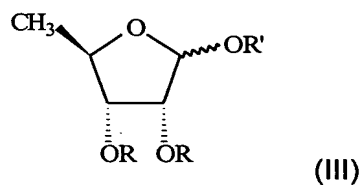
**CLAIMS**

1. A process for preparing a compound of formula



in which R represents linear or branched C<sub>1</sub>-C<sub>5</sub> aliphatic acyl or benzoyl, optionally substituted with C<sub>1</sub>-C<sub>5</sub> alkyls, C<sub>1</sub>-C<sub>5</sub> alkoxyis or halogens,

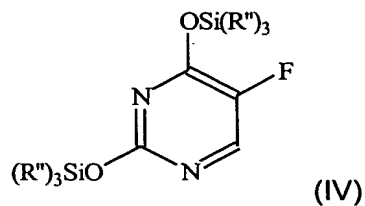
- 10 which comprises the reaction of coupling of a compound of formula



in which

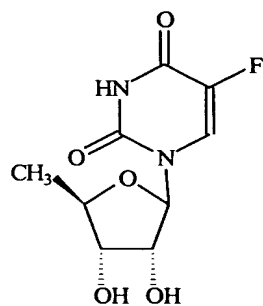
- 15 R represents a linear or branched C<sub>1</sub>-C<sub>5</sub> aliphatic acyl or benzoyl, optionally substituted with C<sub>1</sub>-C<sub>5</sub> alkyls, C<sub>1</sub>-C<sub>5</sub> alkoxyis or halogens,  
 R' represents R or a linear or branched C<sub>1</sub>-C<sub>5</sub> alkyl,

with a compound of formula



in which R", being identical or different, represents a C<sub>1</sub>-C<sub>6</sub> alkyl or a phenyl, in the presence of a Lewis acid and in an inert organic solvent, characterized in that said Lewis acid is added at a temperature below -10°C.

- 5      2.    A process according to claim 1 in which said addition of catalyst is carried out at a temperature between approx. -15 and -20°C.
3.    A process according to claim 1 in which, on completion of said addition of catalyst, the reaction mixture is held further at the same temperature.
- 10     4.    A process according to claim 1 in which R and R' represent acyl, preferably acetyl, and R" represents methyl.
5.    A process according to claim 1 in which said Lewis acid is selected from
- 15     trimethylsilyltrifluoromethanesulphonate and tin tetrachloride, and is preferably tin tetrachloride.
6.    A process according to claim 1 in which said inert organic solvent is selected from chlorinated solvents or aromatic solvents, preferably chlorinated solvents.
- 20     7.    A process according to claim 1 in which said compound of formula II, in which R has the meanings stated above, is further submitted to a reaction of deprotection to give doxifluridine of formula I.
- 25     8.    A process for the preparation of doxifluridine of formula



(I)

that comprises a process according to one of the claims from 1 to 7.